

Applied Mechanics Reviews

A Critical Review of the World Literature in Applied Mechanics

L. H. DONNELL, *Editor*

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Periodicals Now Being Regularly Scanned

(Supplementary List)

THIS list of periodicals being scanned to produce APPLIED MECHANICS REVIEWS is supplementary to the list published in the July, 1948 issue of APPLIED MECHANICS REVIEWS and covers only those periodicals which had not been received and so were not included at that time.

The following information is given: The abbreviation used in APPLIED MECHANICS REVIEWS; full name; frequency of publication; address of publisher; language in which published when this is not evident from the country. The Editorial Office will appreciate receiving the name and publisher's address of any other publication in the field of applied mechanics which we should cover.

A

Acta Polyt.—Acta Polytechnica; irregular; Royal Swedish Academy of Engineering Sciences, Stockholm, Sweden (in English, French, or German).

Aero. Res. tech. Notes.—Aeronautical Research Technical Notes; monthly; The Technical Service Department, Aeronautical Research Limited, Duxford, Cambridge, England.

Amer. Inst. Steel Constr. Rep.—American Institute of Steel Construction Report; irregular; American Institute of Steel Construction Research at Lehigh University, Bethlehem, Pennsylvania, U.S.A.

Amer. J. Math.—American Journal of Mathematics; quarterly; Johns Hopkins Press, Baltimore 18, Maryland, U.S.A.

An. Mecán. Elect.—Anales de Mecánica y Electricidad; bimonthly; La Asociación de Ingenieros del I. C. A. I., Reina 31, Madrid, Spain.

Ann. Phys. Leipzig—Annalen der Physik, Leipzig; irregular; Johann Ambrosius Barth, Leipzig, Germany.

Ann. Scu. norm. sup. Pisa—Annali della Scuola Normale Superiore di Pisa Scienze, Fisiche e Matematiche; quarterly; Nicola Zanichelli, Editore, Bologna, Italy (in Italian and German).

Ann. Trav. publics Belg.—Annales des Travaux Publics de Belgique; bimonthly; Imprimerie G.I.G., 61 Avenue de la Liberté, Bruxelles, Belgium (in French or Flemish).

Anz. Akad. Wiss. Wien—Anzeiger der Österreichischen Akademie der Wissenschaften. Mathematisch-naturwissenschaftliche Klasse; irregular; Springer-Verlag, Mörkerbastei, Wien I, Austria.

Arch. Eisenhüttenw.—Archiv für das Eisenhüttenwesen; irregular; Verlag Stahleisen m.b.H., Schliessfächer 669, Düsseldorf, Germany.

Arch. elekt. Übertr.—Archiv der Elektrischen Übertragung; monthly; Dieterich'sche Verlagsbuchhandlung, Inh. W. Klemm, Wiesbaden, Germany.

Arch. Math.—Archiv der Mathematik; bimonthly; Verlag G. Braun G.m.b.H., Karl-Friedrichstrasse 14, Karlsruhe i. B., Germany.

Arch. Metallk.—Archiv für Metallkunde; monthly; Verlag Chemie, G.m.b.H., Weinheim/Bergstrasse, Germany.

Arch. techn. Messen—Archiv für Technisches Messen; quarterly; Leibniz Verlag, München, Germany.

Ass. fr. Avance. Sci.—Association Française pour l'Avancement des Sciences; semiannually; 28 rue Serpente, Paris VI, France.

Austral. J. sci. Res. ser. A—Australian Journal of Scientific Research, Series A; quarterly; Council for Scientific and Industrial Research, 314 Albert Street, East Melbourne, C.2, Victoria, Australia.

B

Brown Univ. Rep.—Brown University Report; irregular; Graduate Division of Applied Mathematics, Brown University, Providence, Rhode Island, U.S.A.

Build. Res. spec. Rep.—Building Research Special Report; irregular; His Majesty's Stationery Office, York House, Kingsway, London, W.C.2, England.

Build. Res. tech. Bull.—Building Research Technical Bulletin; irregular; same publisher as Build. Res. spec. Rep.

Build. Res. tech. Pap.—Building Research Technical Paper; irregular; same publisher as Build. Res. spec. Rep.

Bul. Polit. Bucarest—Buletinul Politehnicei din Bucureşti; three issues per year; Politehnica din Bucureşti, Calea Griviţei Nr. 132, Bucureşti, Rumania (in French or Rumanian).

Bull. Earthq. Res. Inst. Tokyo—Bulletin of the Earthquake Research Institute, Tokyo University; quarterly; Director of the Earthquake Research Institute, Tokyo University (in Japanese with English summaries or in English with Japanese summaries).

Bull. Nat. Res. Coun.—Bulletin of the National Research Council; irregular; National Research Council, National Academy of Sciences, Washington, D. C., U.S.A.

Bull. Sci. Math.—Bulletin des Sciences Mathématiques; monthly; Gauthier Villars, 55 Quai des Grands-Augustins, Paris VI, France.

Bull. Soc. Ing. civ. Fr.—Bulletin de la Société des Ingénieurs Civils de France; bimonthly; Société des Ingénieurs Civils de France, Hotel de la Société, 19 rue Blanche, Paris 9, France.

Bull. Soc. Sci. Liège—Bulletin de la Société Royale des Sciences de Liège; monthly; Imprimerie M. Hayez, rue de Louvain 112, Bruxelles, Belgium (in French).

Bull. tech. Suisse rom.—Bulletin Technique de la Suisse Romande; biweekly; F. Rouge et Cie, Lausanne, Switzerland (in French).

C

C. R. Acad. Sci. Roum.—Comptes Rendus des Séances de l'Académie des Sciences de Roumanie; Academia Româna, Calea Victoriei 125, Bucureşti, Rumania (in French).

CADO tech. Data Dig.—Central Air Documents Office, Technical Data Digest; semimonthly; Air Documents Division Intelligence Dept., Air Materiel Command, Wright Field, Dayton, Ohio; new name since December 1948 for *Air Technical Intelligence, Technical Data Digest*.

Canad. J. Math.—Canadian Journal of Mathematics; quarterly; University of Toronto, Toronto 5, Ontario, Canada.

Chem. Tech. Chem.-Ing. Wes.—Chemische Technik und Chemie-Ingenieurwesen; monthly; Verlag Chemie G.m.b.H., Weinheim/Bergstrasse, Germany; new name since January 1949 for *Angewandte Chemie, Part B, Technische-Wirtschaftlicher Teil*.

Counc. sci. indust. Res. Div. Aero. Rep.—Council for Scientific and Industrial Research Division of Aeronautics Reports; irregular; Aeronautical Laboratory, Fishermen's Bend, Melbourne, Australia.

Czas. Tech.—Czasopismo Techniczne; monthly; Naczelna Organizacja Techniczna, Oddział w Krakowie i Krakowskie Towarzystwo Techniczne, Straszewskiego 28, Krakow, Poland.

D

Disc. Faraday Soc.—Discussions of the Faraday Society; irregular; Gurney and Jackson, 98 Great Russell Street, London, England.

E

Elektroteknikeren—Elektroteknikeren; semimonthly; Sølvgade 10, København K, Denmark.

F

For. Prod. Lab. Rep.—Forest Product Laboratory Reports; irregular; United States Department of Agriculture, Forest Service, Forest Products Laboratory, Madison 5, Wisconsin, U.S.A.

G

Geol. Rdsch.—Geologische Rundschau; annually; Ferdinand Enke Verlag, Stuttgart, Germany (in German with English and French summaries).

H

Harvard Univ. Publ. grad. Sch. Engng.—Harvard University Publications from the Graduate School of Engineering; irregular; Harvard University, Graduate School of Engineering, Cambridge 38, Massachusetts, U.S.A.

I

Indagationes Math.—Indagationes Mathematicae; five issues per year; North-Holland Publishing Company, Amsterdam, Holland (in English, French or German).

Ingen Vidensk. Skr.—Ingenørvidenskabelige Skrifter; irregular; Academy of Technical Sciences, The Laboratory of Technical Physics; The Technical University of Denmark, København, Denmark (in English).

Inst. Metals Monogr. Rep. Ser.—Institute of Metals Monograph and Report Series; irregular; Institute of Metals, 4 Grosvenor Gardens, London, S.W.1, England.

Inst. Tech. Bâtiment. Trav. Publ.—see *Bâtiment. Trav. Publ.*

Iron Steel Engr.—Iron and Steel Engineer; monthly; Association of Iron and Steel Engineers, 1010 Empire Building, Pittsburgh 22, Pennsylvania, U.S.A.

J

J. Lond. math. Soc.—Journal of the London Mathematical Society; quarterly; C. F. Hodgson & Son, Ltd., 2 Newton Street, Kingsway, London, W.C.2, England.

J. roy. Astr. Soc. Can.—Journal of the Royal Astronomical Society of Canada; bimonthly; David Dunlap Observatory, Richmond Hill P. O., Ontario, Canada.

J. sci. Res. Inst.—Journal of the Scientific Research Institute, Tokyo; irregular; The Scientific Research Institute, Tokyo, Japan (in English).

K

Kautschuk Gummi—Kautschuk und Gummi; monthly; Taubenstrasse 48/49, Berlin W8, Germany.

Kyushu Univ. Res. Inst. Elast. Engng. Rep.—Kyushu University Research Institute for Elasticity Engineering Reports; irregular; Kyushu University, Fukuoka, Japan (in English).

M

Mat. Sborn.—Matematicheski Sbornik; monthly; Academy of Sciences, Moscow, Russia.

Math. Ann.—Mathematische Annalen; irregular; Springer-Verlag, Neuenheimer Landstrasse 24, Heidelberg, Germany.

Memo. Fac. Engng. Kyushu Univ.—Memoirs of the Faculty of Engineering, Kyushu University; quarterly; Kyushu University, Fukuoka, Japan (in English with Japanese summaries and in Japanese with English summaries).

Mémo. Soc. Ing. civ. Fr.—Mémoires de la Société des Ingénieurs Civils de France; bimonthly; Société des Ingénieurs Civils de France, Hotel de la Société, 19 rue Blanche, Paris 9, France.

Met. Rdsch.—Meteorologische Rundschau; monthly; Springer-Verlag, Neuenheimer Landstrasse 24, Heidelberg, Germany (in German with English abstracts).

Metallforsch.—Metallforschung; monthly; Dr. Riederer-Verlag, Stuttgart, Germany; see *Z. Metallk.*

Métallurg. Constr. mécan.—La Métallurgie et la Construction Mécanique; monthly; La Métallurgie, 79 Avenue des Champs-Élysées, Paris, France.

Metalurg. Elect.—Metalurgia y Electricidad; monthly; Metalurgia y Electricidad, Avenida de Jose Antonio 47, Madrid, Spain.

Métaux Corrosion—Métaux et Corrosion; monthly; Éditions Métaux, 32 rue du Maréchal-Joffre, Saint-Germain-en-Laye (Seine-et-Oise), France.

Mitt. Wöhler Inst. Braunschweig—Mitteilungen des Wöhler-Instituts Braunschweig; irregular; Friedr. Vieweg & Sohn, G.m.b.H., Bergplatz 1, Braunschweig, Germany.

Motortech. Z.—Motortechnische Zeitschrift; bimonthly; Franckh'sche Verlagshandlung, Pfizerstrasse 5-7, Stuttgart O, Germany.

N

Nat. Bur. Stands. Circ.—National Bureau of Standards Circulars; irregular; National Bureau of Standards, U. S. Department of Commerce, Washington 25, D. C., U.S.A.

Nat. Bur. Stands. misc. Publ.—National Bureau of Standards Miscellaneous Publications; irregular; same publisher as *Nat. Bur. Stands. Circ.*

Naturwissenschaften—Die Naturwissenschaften; semimonthly; Springer-Verlag, Berlin, Germany.

Nav. ord. Lab. Rep.—Naval Ordnance Laboratory Report; irregular; Office of the Publication Board, Department of Commerce, Washington 25, D. C., U.S.A.

P

Pap. phys. Oceanogr. Met.—Papers in Physical Oceanography and Meteorology; irregular; Woods Hole Oceanographic Institution, Woods Hole, Massachusetts, U.S.A.

Philips Res. Rep.—Philips Research Reports; bimonthly; Elsevier Book Co., Inc., 215 Fourth Avenue, New York 3, New York, U.S.A. (in English).

Polyt. Tijdschr.—Polytechnisch Tijdschrift; biweekly; Baliestraat 28, s' Gravenhage, Holland.

Proc. Indian Acad. Sci. Sec. A.—Proceedings of the Indian Academy of Sciences, Section A; monthly; Indian Academy of Sciences, Bangalore, India (in English).

Proc. nat. Conf. indust. Hyd.—Proceedings of the National Conference on Industrial Hydraulics; annually; National Conference on Industrial Hydraulics, Armour Research Foundation, Technology Center, Chicago 16, Illinois, U.S.A.

Proc. roy. Inst. Gr. Brit.—Proceedings of the Royal Institution of Great Britain; annually; Messrs. William Clowes & Sons, Ltd., Little New Street, London, E.C.4, England.

Proc. roy. Swed. Acad. engng. Sci.—Proceedings of the Royal Swedish Academy of Engineering Sciences; irregular; Royal Swedish Academy of Engineering Sciences, Stockholm, Sweden (in English).

Prod. Engng.—Product Engineering; monthly; McGraw-Hill Publishing Company, 330 W. 42nd Street, New York 18, New York, U.S.A.

Publ. Dom. Observ.—Publications of the Dominion Observatory; irregular; Department of Mines & Resources, Mines, Forests and Scientific Services Branch, Ottawa, Ontario, Canada.

R

Rep. Memo. aero. Res. Counc. Lond.—Reports and Memoranda of the Aeronautical Research Council of Great Britain; irregular; His Majesty's Stationery Office, York House, Kingsway, London, W.C.2, England.

Rev. Ordem Engenrs.—Revista da Ordem dos Engenheiros; monthly; Av. de Antonio Augusto de Aguiar 1, Lisboa-N, Portugal.

Rev. trim. Canad.—Revue Trimestrielle Canadienne; quarterly; École Polytechnique, 1430 rue Saint-Denis, Montréal 18, Canada (in French or English).

Riv. Milit.—Rivista Militare; monthly; Via Di S. Marco 8, Roma, Italy.

Riv. Nuovo Cim.—La Rivista del Nuovo Cimento; supplement to *Il Nuovo Cimento*, which see.

S

Sborn. Masaryk. Akad. Práce—Sborník Masarykovy Akademie Práce; at least four issues a year; Masarykovy Akademie Práce, Praha II, Czechoslovakia.

Sci. Rec.—Science Record; irregular; Academia Sinica, Nanking 5, China (in English, French or German).

Stahl Eisen—Stahl und Eisen; every four weeks; Verlag Stahl-eisen m.b.H., August-Thyssen-Strasse 1, Düsseldorf, Germany.

Studii—Studii; quarterly; B-Dul Maresal Tito 29, Bucuresti, Rumania.

T

T.N.O. Nieuws—T.N.O.-Nieuws; monthly; T.N.O.-Nieuws, A. H. Kruyt, Bussum, Holland.

Tech. mod. Constr.—La Technique Moderne-Construction; monthly; Éditeur Dunod, 92 rue Bonaparte, Paris 6, France.

Tech. Rdsch. Bern—Technische Rundschau; weekly; Technische Rundschau, Breitenrainstrasse 97, Bern, Switzerland (in German).

Tech. Wet. Tijdschr.—Technisch-Wetenschappelijk Tijdschrift; monthly; Vlaamse Ingenieursvereniging, Torengebouw VIII, Schoenmarkt 31, Antwerpen, Belgium (in Flemish).

Técn. Metalúrg.—Técnica Metalúrgica; bimonthly; Asociación Técnica Española de Estudios Metalúrgicos, Paseo de Gracia, 50, Barcelona, Spain.

Texn. Xponika—Texnika Xponika; monthly; Technical Chronicles, Greek Technical Chamber, Athens, Greece.

Termoteenica—La Termoteenica; monthly; Associazione Termoteenica Italiana, Via N. Torriani 3, Milano, Italy.

Tijdschr. ned. aardijksk. Genoot.—Tijdschrift van het Koninklijk Nederlandsch Aardrijkskundig Genootschap; bimonthly; Secretariat, Heerengracht 619, Amsterdam C, Holland (Dutch or English and some English summaries).

Trans. Dan. Acad. tech. Sci.—Transactions of the Danish Academy of Technical Sciences; six issues per year; Laboratoriet for Teknisk Fysik, Danmarks Tekniske Højskole, Østervoldsgade 10, København K, Denmark (in English).

Trans. Faraday Soc.—Transactions of the Faraday Society; monthly; Gurney and Jackson, 98 Great Russell Street, London, England.

Trans. Soc. nav. Archit. mar. Engrs.—Transactions of the Society of Naval Architects and Marine Engineers; one volume annually; Society of Naval Architects and Marine Engineers, New York, New York, U.S.A.

U

U. S. atom. energy Comm. Doc.—United States Atomic Energy Commission Documents; irregular; United States Atomic Energy Commission, Document Sales Agency, P. O. Box 62, Oak Ridge, Tennessee, U.S.A.

Univ. B. C. Dept. agr. Engng. Publ.—University of British Columbia, Department of Agricultural Engineering Publications; irregular; University of British Columbia, Department of Agricultural Engineering, Vancouver, British Columbia, Canada.

Univ. Iowa Stud. Engng. Bull.—University of Iowa Studies in Engineering Bulletin; irregular; University of Iowa, Iowa City, Iowa, U.S.A.

W

Wiss. Veröff. T. H. Darmstadt—Wissenschaftliche Veröffentlichungen der Technischen Hochschule Darmstadt; semi-annually; Carl Winter, Universitätsverlag, Heidelberg, Germany.

Z

Z. *Met.*—Zeitschrift für Meteorologie; monthly; Deutscher Zentralverlag, Breite Strasse 37, Berlin C2, Germany.

Z. *Metallk.*—Zeitschrift für Metallkunde; monthly; Dr. Riederer-Verlag, Stuttgart, Germany; new name since January 1949 for *Metallforschung*.

Z. *Öst. Ingen.-Archit.-Ver.*—Zeitschrift des Österreichischen Ingenieur- und Architekten-Vereines; biweekly; Springer-Verlag, Mölkerbastei 5, Wien I, Austria (in German).

Z. *Ver. dtsc. Ing.*—Zeitschrift des Vereines deutscher Ingenieure; monthly; Deutscher-Ingenieur-Verlag G.m.b.H., Ratingen b (22a), Düsseldorf, Germany.

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List of Reviewers

THE editors wish to express appreciation on behalf of themselves as well as all the readers of this magazine to the following scientists who have graciously consented to give their time and the benefit of their learning to review articles for APPLIED MECHANICS REVIEWS.

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Other Reviewing or Abstracting Services

IN the following is presented for the readers' information a list of other sources which maintain regular reviewing or abstracting services, which border upon or partly include the field covered by APPLIED MECHANICS REVIEWS. All those known to the editors are listed; information regarding others which should be included is solicited.

A

Aeronautical Engineering Review; monthly; Institute of the Aeronautical Sciences, 2 East 64th Street, New York 21, New York, U.S.A.; abstracts of aeronautics articles, reviews of aeronautics books.

L'Aerotecnica; bimonthly; Associazione Italiana di Aeronautica, Piazza S. Bernardo 101, Rome, Italy; limited number of aeronautics reviews; in Italian.

Aperçu de la Presse Technique; monthly; Syndicat Général des Industries Mécanique et Transformatrices des Métaux, 11 Avenue Hoche, Paris 8e, France; brief abstracts of articles on industrial materials and processes; in French.

B

British Abstracts: Section A—Chemistry, Physiology, etc.; Section B—Chem. Eng., Industrial Chemistry, Metallurgy, Agriculture, etc.; Section C—Analysis and Apparatus (bimonthly); monthly; Bureau of Abstracts, 9/10 Savile Row, London, W.1, England; expert abstracts of literature in field.

Bulletin Analytique: Part I—Mathematical and Physical Sciences and their Applications; Part II—Biological Sciences; monthly; Service de Documentation du C.N.R.S., 18 rue Pierre-Curie, Paris 5e, France; brief abstracts of scientific literature; in French.

C

CADO Technical Data Digest (formerly ATI Tech. Data Dig.); semimonthly; Air Documents Division, Intelligence Department, Air Materiel Command, Wright Field, Dayton, Ohio, U.S.A.; abstracts of aeronautics articles, principally from U.S.A.

Chemical Abstracts; semimonthly; American Chemical Society, 1155 16th Street N. W., Washington, D. C., U.S.A.; expert abstracts, with very complete coverage in field, which includes Metallurgy, Plastics, Glass, Cement, Lubricants, etc., mainly from chemical viewpoint.

E

Engineers' Digest; monthly; E. D. Publications, 1 Madison Avenue, New York 10, New York, U.S.A.; digest of engineering developments outside U.S.A.

Engineering Index; weekly; Engineering Index Service, 29 West 39th Street, New York 18, New York, U.S.A.; library card service, giving brief abstracts of world technical literature.

G

Geophysical Abstracts; quarterly; U.S. Bur. of Mines and U.S. Geol. Survey, Government Printing Office, Washington, D. C., U.S.A.; abstracts of literature in field.

I

Index Aeronauticus; monthly; Ministry of Supply, Room 5042, Thames House, Millbank, S.W.1, England; abstracts of articles on aeronautical research, production and operation.

M

Mathematical Reviews; monthly; American Mathematical Society, Brown University, Providence 12, Rhode Island, U.S.A.; critical reviews of pure and applied mathematics literature.

Metallurgical Abstracts (supplement to *Journal of the Institute of Metals*); monthly; Institute of Metals, 4 Grosvenor Gardens, London, S.W.1, England; abstracts in metallurgy, general and nonferrous.

N

Naval Propulsive Power; monthly; Institute of Research, Lehigh University, Bethlehem, Pennsylvania, U.S.A.; digest of literature in field.

P

Physics Abstracts; see *Science Abstracts*

R

Railway Engineering Abstracts; bimonthly; Institute of Civil Engineers, Great George Street, London, S.W.1, England; abstracts of articles in field.

Revista di Aeronautica; monthly; Associazione Culturale Aeronautica, Piazza del Popolo 18, Rome, Italy; limited number of aeronautics reviews; in Italian.

Road Abstracts (supplement to *J. Inst. Municipal Engrs.*); monthly; Department of Scientific and Industrial Research, 3 Central Buildings, Mathew Parker St., London, S.W.1, England; abstracts of literature in field.

S

Science Abstracts: Section A—Physics Abstracts; Section B—Electrical Engineering; monthly; The Institution of Electrical Engineers, Savoy Place, London, W.C.2, England; expert reviews of scientific literature in fields.

Z

Zentralblatt für Mathematik; approximately monthly until about 1943 when it was discontinued, but reported to be recently revived; Springer Verlag, Neuenheimer Landstrasse 24, Heidelberg, Germany; critical reviews of mathematics literature; principally in German.

(*Zentralblatt für Mechanik*; approximately monthly until about 1943 when it was discontinued; Springer Verlag, Neuenheimer Landstrasse 24, Heidelberg, Germany; critical reviews of mechanics literature; principally in German.)